



TETRODOTOXIN

Agent Overview:

Tetrodotoxin is a toxin excreted by different species of fish, newts, octopi, and toads. Many species of puffer fish, blowfish and fugu contain Tetrodotoxin, and it is also produced by several species of octopus, frogs, crabs, and starfish as well as the California newt. The most common exposure occurs by ingesting pufferfish (or other organisms), as Tetrodotoxin is present in the fish's skin and organs. Rapid onset (20 minutes to 3 hours) of signs and symptoms leads to oral burning, prickling, itching, or tingling (paresthesias). These could progress to include the arms and legs, cranial nerve dysfunction, a sensation of lightness or floating, headache, abdominal pains (epigastria), nausea, diarrhea, vomiting, and weakness that could progress to paralysis. In severe poisoning, cardiac failure or dysrhythmias, low blood pressure (hypotension), and even death might occur within 4 to 6 hours.

Lab Specimen Submittal:

Authorization by Dr. Jane Getchell, Director DPHL; Christina Pleasanton, Deputy Director DPHL; or Tara Lydick, Chemical Terrorism Coordinator.

Type of Specimens

Urine: 25mL-50mL screw-cap container

Necessary for Testing:

Whole blood:

- Three, 5 or 7 mL purple-top (EDTA) tubes (vacuum fill only) AND
- One, 5 or 7 mL gray-top or green-top (vacuum fill only) AND
- Two empty urine cups and two empty blood tubes for each lot # submitted.

Packaging Instructions:

Urine: freeze specimen upon collection and ship on dry ice; label specimens and package individually; wrap with absorbent material.

Whole blood: place filled tubes in a shipping rack for stability, wrap the tubes in absorbent material, and secure with tape. Place the packaged tubes in a secondary unbreakable container. Specimens may be shipped cold but *must not* be frozen.

All: wrap sample containers and layers with tamper-proof, waterproof forensic evidence tape initialed by collector, being careful not to cover the sample labels. Ship to DPHL as Biological Substance, Category B (Packing Instruction 650).

Receiving Specimens at DPHL:

Authorized specimens are received at the laboratory's rear (loading dock) entrance. Submitters must present ID and complete proper forms.

Handling of Specimens:

Follow chain of custody procedures. Freeze urine specimens.

Reporting Results:

Reference laboratory will notify DPHL as soon as possible. The Potential Exposure Call Log and Information form will provide information for notification of testing results outside of the DPHL.

Contact Information:

Jane Getchell, DrPH, Director DPHL, 302-223-1520 (24/7 coverage)

24/7 Emergency Contact Number: 1-888-295-5156

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